

**Gender collaborative training in elite university sport:
Challenging gender essentialism through integrated training in gender-segregated
sports**

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Abstract

Competitive teamsport at university level is predominantly segregated by gender in many Western countries, despite concerns that gender segregation in sport can perpetuate sexism and gender inequality. While policies and activities seek to challenge sexism and gender inequality, the use of gender collaboration within a gender-segregated system as a method to achieve this has received little attention. In this article, we draw on a year-long ethnography of elite sport and 48 in-depth interviews with elite male and female athletes at a British university to explore the impact of various forms of gender mixing during training, which we call gender collaborative training. While men's and women's teams competing against each other in practice matches resulted in gender essentialist narratives attributing difference to biology, gender integrated practices and workouts provided opportunities for men and women to train together without the gendered sport-specific associations that can reproduce sexism. We call for gender collaborative training to be adopted by gender segregated teams, and suggest that where there is resistance to any integration, teams start with mixed physical workouts and progress to mixed sport-specific training and then mixed competitive training.

Keywords: collaboration, essentialist narratives, gender, segregation, training

Introduction

Sport has a long history of excluding women (Hargreaves, 1994) and continues to segregate by gender in a way that would be unacceptable in most other social institutions (Pfister, 2010). Although sexism has been decreasing in sport (Bryant, 2003), it remains a substantive social problem, particularly in competitive and elite teamsport. An impediment to gender integration in elite teamsport is that segregation is enforced through league and association structures that are hard to challenge, particularly given that many women value gender segregated spaces in sport more generally. Focussing on gender integration within a gender segregated system has thus received little attention (see Channon, 2014 as an exception), as it can be seen to endorse gender segregation by those who want integration and undermine women's safe spaces by those who support women-only spaces. Yet, forms of integration within a segregated system can have real benefits and support gender egalitarian perspectives (Hills and Croston, 2012).

In this article, we examine gender collaborative training in elite sport at a British university, which we define as organised training sessions where there is a mix of genders, ranging from one or two players subbing into the other team's training, combined team drills or fully gender-integrated workouts focussed on fitness and strength. We draw on interview and ethnographic data to highlight the complexities of gender collaborative training, finding difference views of mixed practices and mixed workouts—the latter providing opportunities for men and women to train together without the gendered sport-specific associations which can reproduce sexism. We support both forms of gender collaborative training being used in gender segregated teams, and recommend that where there is resistance to any form of integration, teams start with mixed physical workouts and progress to mixed sport-specific training and then mixed competitive training. We support gender integration in sport more

generally, and see gender collaborative training as having real potential in combatting sexism and gender inequality within gender segregated sports.

Sport segregation as social exclusion

Women have historically been structurally excluded from organised sport, establishing it as a breeding ground for macho behaviours (Ferez, 2012; Theberge, 1985). Boys were the main focal point of organised sport during the second industrial revolution, with sport promoting hyper-masculinity and male dominance in society (Butterfield and Loovis, 1994). In this context, sport was called a “male preserve” (Sheard and Dunning, 1973), where men were shielded from social changes, such as feminism and sexual minority rights, that questioned the presumed status of men as superior to women.

While the 20th century saw progress related to women’s sport in Western societies (Hargreaves, 1994), compulsory gender segregation is enforced in most organised sport, making it one of few remaining occupations in which gender segregation is explicitly visible. This segregation is supported by many women athletes who desire to participate away from the violence and aggression of many male sporting cultures (Hargreaves, 1994; Smith, 1983). However, while many women value playing in women-only sports, gender segregation hinders gender equity and reinforces gender differences, reproducing male privilege over women and reifying a gender binary (Fielding-Lloyd and Meân, 2008; McDonagh and Pappano, 2008), also excluding trans athletes (Pieper, 2016). As society has seen some gender stereotypes successfully challenged, some men turn to sport to continue to view themselves as naturally physically superior (Dunning, 1986; Matthews, 2016); and sports that value physicality and strength are particularly popular (Burton-Nelson, 1994).

McDonagh and Pappano (2008) argue persuasively that the fundamental issue with much of the gender inequality in sport is gender segregation and the classification of sports as

male or female. This, they argue, is because the segregation is based solely on sex categorization. Here, coercive gender segregation in sport *presumes* women's inferiority to men as it is seen as *also* segregating by skill and physical ability by virtue of men's perceived natural superiority. The exclusion of women from men's sporting spaces is a mechanism to ensure men's continued dominance in sport (Bryson, 1987) and this success is seen as "symbolic proof of superiority and right to rule" (Connell, 1995, p. 54), legitimating gender inequalities in broader society.

Teamsport is still perhaps the key institution by which gender differences are naturalized and where masculinity is associated with strength and power (Pronger, 1990). Yet, while group differences exist between men and women, they advantage men only in some sports and women in others (McDonagh and Pappano, 2008). Male-dominated sporting hierarchies rationalize gender segregation through "alleged physical, physiological and psychological shortcomings" without considering the social and organisational factors in which they are themselves implicated (Dyer, 1982: 3). Indeed, the current organisation of teamsport in Western societies sees a Matthew effect for men (Merton, 1968), where skill is rewarded by intense support and praise, and a Matilda effect for women (Rossiter, 1993), where women's achievements do not receive the same credit or support.

The language associated with sport and masculinity further reproduces male privilege over women through gender segregation, from youth sports to elite adult competition. Young boys, socialised through sport and its 'character-building' benefits, construct a sporting language that earns them human capital, where "playing like a girl" is also construed as an insult (McDonagh and Pappano, 2008). This sporting language teaches boys and men to bond, work together, and solve problems in the male-only atmosphere of team sports, excluding women from learning cultural language norms deemed necessary to impress masculine gatekeepers to other male dominated social institutions (Joseph and Anderson,

2015). Furthermore, terms such as ‘skill’ and ‘technique’ are also used in problematic ways to differentiate women’s sporting participation from men. Feminist sociologists of sport have shown how women’s sport is often described as more technical and skilful, not because women are seen as better in these regards, but to symbolically separate women from the more physical sports that hold greater cultural esteem (Fink et al., 2016; Kane, 1995). This also occurs in media coverage of sport, where women’s sporting participation is represented as “naturally” less interesting and exciting than men’s sport (Greer, Hardin and Homan, 2009). We call these discursive practices ‘gender essentialist narratives’, bringing together the diverse ways that gender differences are attributed to biological or ‘natural’ reasons rather than through social practices and structures (e.g. Fink et al., 2016; Meân, 2001; Messner and Bozada-Deas, 2009).

Gender integration and continued gender binary logic

Arguing against ‘commonsense’ notions of essentialist gender differences based on sex categorization, Kane (1995) called for sporting prowess to be viewed as a continuum. She highlighted that female athletes outperform male athletes in athletic accomplishments not limited to feminized acts such as grace and flexibility. Viewing sport as a continuum, rather than a gender binary or hierarchy, would show that men and women compete with overlapping performance outcomes and capabilities. This could also lead to greater gender integration in sport, particularly where competitive sport was organised through weight, size or age rather than by gender. McDonagh and Pappano (2008) suggest that gender integrated sports teams give male and female athletes to work together for the outcome of a common goal, improving gender relations and decreasing sexism. There is a growing movement within sport research to consider the potential benefits and problems with integrating sport to combat gender inequality (see Channon et al., 2016), in both competitive and recreational

sport (Cohen et al., 2014; Henry and Comeaux, 1999; Hills and Croston, 2012). Anderson (2008) conducted ethnographic research on collegiate male cheerleaders who played in a gender-integrated cheerleading league, finding that despite years of socialisation into orthodox masculinity during their high school American football careers, this group of male collegiate cheerleaders' attitudes towards women's athleticism, leadership abilities and friendship changed after competing with women athletes. His findings suggested that gender-integrating sports might potentially decrease male athlete's sexism and misogyny.

However, the nature of gender integration is significant and the culture in which it occurs impacts its effectiveness in combating sexism (Channon et al, 2016). Highlighting the challenges of gender integrative practices, Fink et al. (2016) interviewed ten male practice players for an elite NCAA Division-I women's basketball team at a university in the United States. These ten male practice players were often used as 'scouts' for the team, meaning that the coach would review video on an opponent and tell the practice player some specific tendencies of that player, and the male practice player would simulate those tendencies in practice to prepare the women's basketball team. Fink et al. (2016) found that the male practice players acknowledged the sport continuum, and many of these men admitted that they had positively changed their perspectives of female basketball players due to regularly competing with and against the women's team. Yet, these men also reinforced traditional gender stereotypes through gender essentialist narratives, re-gendering women athletes by making comments that these women "...don't play like girls, like you think a girl would play" (Fink et al., 2016, p. 1325). Kane (1995) described this language for describing female athletes as "the deviant mutant", in which the player being discussed is beyond the realm of conceivable feminine athletic ability.

There is evidence that mixed-gender training can have positive effects when it occurs in a culture that supports gender equality. Interviewing 37 martial arts practitioners about

their mixed training experiences, Channon (2014) found that such training benefitted highly skilled women, who had limited access to other women of their ability. Importantly, Channon further found that mixed-sex training had the potential to challenge sexist notions of gender difference and even undermine heteronormative and patriarchal gender structures (see Channon and Jennings, 2013). This evidence provides an important foundation to explore the potential benefits of mixed-gender training, yet the history and specific culture of contemporary martial arts and combat sports means that they are an outlier compared to many other sports practiced in the West where gender segregation is entrenched both structurally and culturally (Channon, 2014).

Methods

Data for this study comes from a one-year ethnographic study of elite sport at a university in the north of England known for its success in British University College Sport (BUCS) leagues. We call the university Northern University, and refer to the elite BUCS teams at the university as Team Northern. The original focus of the ethnography was with the players of the elite Volleyball men's team, of which the first author was an existing core player. Given the social dynamics of Team Northern, where the main connection was elite athletic status rather than specific sport, data was also collected with the Team Northern women's volleyball team and men and women from other elite sports across Team Northern, specifically Basketball, Lacrosse and Water Polo. The ethnography occurred not just in the sporting context, but in the broader socializing and private lives of the athletes. Alongside the ethnographic component, in-depth interviews were conducted with 30 male athletes and 18 female athletes from across these teams.

Data started in September during pre-season training, where a large number of American recruits joined the BUCS teams prior to the start of the academic year, and lasted

until the end of the summer, to include the various farewell gatherings and social events that last beyond the academic year, as well as the early arrival of new recruits for the following season. Given the lead author's status as an elite Volleyball player on the team, an insider approach was adopted. The lead author was involved in recruitment activities, was a starting player on the team and had played on this team for two years prior to data collection. He is American and was also open about his bisexuality—and was warmly included in the Team Northern community in previous years. The broader study connected questions of sexuality, gender and changing social norms with elite sport and everyday life and, in this article, we focus on the dynamics of gender integrated training for these athletes. The second author is a gay male sociologist, and attended occasional Volleyball matches as a spectator as well as two social events across the year, introduced as a friend and research mentor of the first author. He made immediate post-hoc notes of his experiences (Spradley, 1970) and these were compared with the first author and similar interpretations of the events were reached (Urquhart, 2013).

We adopted a modified approach to grounded theory that roots analysis inductively within the data while being engaged with core themes and concepts in the literature to a greater extent than originally conceived with grounded theory (Charmaz, 2014). Sensitizing concepts related to sport, gender and sexuality guided data collection and initial analysis, yet analysis developed inductively according to data collected. Here, constant comparative methods were used, with emerging codes discussed between authors and developed into focussed codes (Goetz and LeCompte, 1981). This analysis was developed further through deeper engagement with the literature as a form of middle-range coding (Dey, 1993), where themes were combined with existing frameworks to develop a theory grounded in the data and engaged with existing debates (Urquhart, 2013). To confirm internal coherence, these themes were then related back to the transcripts and field notes (Charmaz, 2014). The lead

author worked closely with the second author in analysis and to ensure rigour in the process of reflexivity and guarding against bias.

Ethical processes were adopted throughout the study, and this included gaining informed consent from participants, as well as from the Head of Sport at Team Northern, allowing athletes to opt out of the study and ensuring anonymity. Pseudonyms are used, and we withhold the year data was collected so individuals cannot be identified (noting that the data was collected within 5 years of the time of writing). We have also changed minor details about individuals or their stories to ensure anonymity.

Results

All participants played in gender segregated sports, as determined by the BUCS leagues in which they played. As such, we examine participants' perspectives on gender segregated mixed competitive training matches before turning to two forms of gender integrated training, which we have called gender collaborative training. There was much more support for gender integration in training compared to competitive practice matches, not least because differences in the rules of the game had far less relevance in this context.

Gender Segregated Mixed Competition

At Team Northern, there would sometimes be practice matches between the men's and women's teams—something we call gender segregated mixed competition. Participants had mixed views on this, with a minority (10 out of 30) male athletes thinking it would be beneficial for both teams but a majority of female athletes thinking so (16 out of 18).

Considering the positive perspectives, six players felt that competing against a women's team was beneficial due to women's different style of play, skill and technique. Volleyball player Landon spoke about the benefits of competing against the women's

volleyball team, saying that they provide a different type of challenge to the men, forcing the men's team to play differently than normal. He said "We have to make adjustments to play against a team that does not act and perform like many of the men's teams we face. Anything to shock us or make us adjust our mental focus is good for us". Landon also described playing against the women as a "great learning experience", saying: "It is a good opportunity to see how this team which is seemingly smaller and less physical than ours can score a lot of points against us". Another player said "The style of play is different between both the teams, so it forces us to concentrate on the things we were less good at."

The other four players in support of gender segregated mixed competition felt so because they viewed having a scrimmage against any high-level competitor as beneficial. A Lacrosse player said "Repetitions are incredibly important, so I believe it would be beneficial in that regard." Chase, a water polo player from the UK, believed that competing against the women's water polo team would have many benefits, saying, "Any quality reps that are 'game-like' will always be beneficial, and those female athletes are certainly quality athletes."

Most of the women participants believed that the men would gain from playing against them. Bella, a volleyball player from the US said:

We can challenge them in ways that they aren't used to being challenged. For example, their blocks are big but undisciplined. We play them we just score by hitting off their blocks and out of bounds, so playing against us would teach them to be more disciplined with their skills.

Similarly, Olivia, a basketball player from the US, said:

I like playing the boys because they're so big, it makes it harder. For them though, I think the women's game relies on tactics and quick passing a lot more than the men's game. They just drive the ball straight to the hoop. They should actually take notes

when they play us, it could teach them to play more like a team instead of a bunch of individuals.

Both women describe ways that their gameplay differs from that of the men, claiming that the men could become better players by sometimes relying less on strength and more on tactics (the men on the Basketball team did not agree, and did not see value in these competitive games). Notably, both male and female athletes who supported men's versus women's games used essentialist narratives about gender differences to support their view, particularly the discourse of skill versus strength (Fink et al. 2016).

Twenty of the 30 male athletes said it would not be beneficial to the team to play competitive practice matches against the women's teams. Rather than citing gender, lacrosse players claimed that the differences in rules would not benefit either team in getting better at lacrosse¹; an argument supported by the two female lacrosse athletes interviewed. However, the much smaller differences in rules for the other sports were still discussed by men who did not see the value, where they focussed on particular details of competition rather than broader potential benefits. For example, Ralph, a volleyball player from the US, said:

I don't think either team benefits from it as much as they would if they were playing a team in their own gender. When we mix we have to decide if we are going to play on a men's net or a women's net, and either way someone is getting screwed.

Men doubtful about gender segregated mixed competition also raised size and strength as issues. A male Basketball player stated "the differences in size and speed is too much", and a Water Polo player similarly commented "The Men's team is physically stronger and more athletic. Reaction time is also faster in the Men's game". Jose, a male volleyball player, said: "We play the game at different heights. I don't think its beneficial for us to go and hit over their block, and I don't think its beneficial for them to try to block our attacks". Despite these views, the women's Volleyball team beat the men's team in a competitive practice match

during the year—highlighting that while the men won more of these games, they were competitive and there was scope for both genders to learn from these games. The discussion around gender segregated mixed competition was often located in gender essentialist narratives of biological gender differences or skill versus strength, for both support and opposition to this training.

Gender Collaborative Training

Whereas gender segregated mixed competition proved contentious, athletes were much more positive about training together. This section addresses gender collaborative training, a term we use to describe the following gender-mixed training sessions at Team Northern: (1) one or more women training with the men's team when extra players are needed, and vice versa; (2) mixing genders for combined team drills; and (3) mixed gender workouts. We refer to the first two as gender collaborative sports training, where the rules of the sport and its dynamics can have more effect, and the third as gender collaborative workouts, where the sport only guides the type of exercise included in the workout.

Gender Collaborative Sports Training

At Team Northern, gender collaborative training only occurred occasionally, and in specific circumstances. The men's volleyball team maintained the most positive gender relations with the female athletes, both reported by their views competing against and training with women, and the women's perception of these men in general. This team also had the highest engagement with gender collaborative training; having four out of five weekly practices occurring simultaneously on adjacent courts, as well mixing for one workout per week, which normally focused on weighted circuit training in small groups.

These similar practice times led to instances where the men's team and women's team decided to fully compete against each other, and other times where one or more players would be borrowed for part of practice to make a drill run more efficiently. In volleyball, there are no rule differences between the men's game and the women's game, other than net height (2.24 metres for women's volleyball, 2.43 metres for men); justified by the average height of men being taller than that of women. The head-to-head competitions, played on both nets across the year, resulted in one victory for the women's team, and the men had regular experience of losing points as a direct result of a play made by a female athlete through the gender collaborative training sessions. When the teams mixed for training, one court had a men's net and one had a women's net. On the women's net, women would attack while the men only played defence while on the men's net, men would attack as the women played defence.

The water polo team also engaged in several gender collaborative training sessions, mostly revolving around one or two female players mixing in with the men's team on occasions throughout the year, as well as with every workout session being together. Men's basketball and men's lacrosse engaged in little to no gender collaborative training.

Twenty of the 30 male athletes thought gender collaborative training would benefit their team, compared with 10 who supported gender segregated mixed competition. All 18 elite female athletes said that mixing in this way would be beneficial for both teams. For the men, attitudes closely match the sport they play— all men in water polo and volleyball supported gender collaborative training, while those that were more resistant were on teams that did not practice it. Even so, some men with no direct experience of it stated they thought it would be valuable, because of either witnessing or hearing positive comments about it from men on the volleyball or water polo teams. A men's Lacrosse player commented "We never got to compete against the women's team, but I think it would've allowed us to see the value

of patience and finesse in Lacrosse, I think it would show us a different side of offensive talent.”

When discussing mixed practices during an interview, Landon, a volleyball player from America, said he always encouraged his teammates to practice with the women’s team if the women needed an extra player, and he always volunteered when he had the time. He added: “Their training was always challenging and it allowed me and my teammates to learn from some truly great players and practice some facets of their game that we don’t often see in the men’s game”. Ashton, a volleyball player from America, shared Landon’s sentiments about learning from the women, saying: “There is a lot to learn from playing against and even just watching the women play. These women play the game differently than our team, and by learning their side of the game it can make us more well-rounded players”. Here, Ashton commented that understanding the way that women play the game, in comparison to men, has positive effects on his understanding of the game, making him a better overall player in the long run.

Annie, a volleyball player from the US, also thought that mixing with the men has many benefits for her team. She said,

If we know that one of our opponents has an all-star hitter that they utilise quite a lot, it’s really beneficial to invite one of the men to our practice and have him ‘be her’, it really helps us with our strategy and learning how to shut down one key player in a game.

Drawing on gender essentialist narratives, Kate, another American volleyball player, confidently stated that gender collaborative training in volleyball benefits the men’s team greatly because “It is good that we can show men how to be more technically sound in the game, instead of just relying on brute strength. We can show them how to actually use their brain to earn points instead of just their biceps”. Kate also stated that gender collaborative

training is mutually beneficial for volleyball players in numerous competitive settings, especially drill work, because the skills and techniques are the same for both genders.

Male water polo players, Joseph and Ayden, had mixed thoughts on gender collaborative training. Ayden said:

Mixing in for drills can be really helpful, a few of the women are really talented so we like it when they jump in on our sessions when we are short-handed, but scrimmaging with them can be uncomfortable due to all of the physical aggression in water polo, but we make it work.

Joseph raised a similar issue related to aggression in competitive mixed-gender settings:

If you're looking at talent and experience, the girls can definitely mix in with us and its completely fine. But sometimes when we get into mixed gameplay I think the girls try to be extra violent to make up for the fact that they are playing with the boys, I don't like it.

The men here are unsure of the appropriate amount of physicality they can engage in during the sporting session, which makes for an uncomfortable situation (see Winiarska et al., 2016); however, they both make it clear that talent is not the issue at hand when it comes to gender mixed practice sessions and water polo, and all parties benefit from the training.

The men's perspectives here are somewhat challenged by the Water Polo women athletes interviewed. Janet and Amelia had only positive experiences to report when discussing their times training with the men's team. During the interviews, Janet said "I think the guys learn a lot when me and Amelia jump in on a practice. A lot about technique and finesse, and how to work the whole pool to score without just overpowering each other". Amelia concurred, and elaborated:

They could really use the help when it comes to executing a well thought out water polo strategy, it'd make them way better. But the size of the boys really helps me because I have to think of new ways to manoeuvre around them, it's a fun challenge.

The most problematic perspectives came from the men's basketball team (see also Fink, LaVoi and Newhall, 2016), who had no instances of gender collaborative training. When discussing gender collaborative training sessions with the male basketball players, many did not seem to think there was any benefit to playing with the women because of height differences. One American player, Carson, said: "We don't need to practice with the girls, we have enough players, it wouldn't help us at all to bench one of our guys so one of the women could jump in with us." Carson, a basketball player from America, said that training with women has no benefit for his team: "The women's team wouldn't be able to push us as hard as we can push each other, so taking time out of our own practice to compete with the women wouldn't be beneficial at all, we only need to compete against each other to prepare for our games".

It is not possible to attribute causality to these perspectives – perhaps gender collaborative training could only occur with the men who already had more positive views on women's performance, or perhaps the collaborative training supported these more positive views and experiences (Anderson, 2008). What is notable, however, is the experiential benefits that players, both men and women, reported in gender collaborative training and that similarly positive narratives were not present among the teams that did not practice this.

Gender Collaborative Training Workouts

More important than the athletes' positive attitudes toward gender collaborative training for those that had experienced it was the positive effect it had on the dynamics of the men's and women's teams. The ethnographic excerpt below highlights a positive moment during gender

collaborative training with elite volleyball athletes during a mixed gender workout session with the team trainer:

September 14th

It's the first day back on the schedule, the time of year called 'preseason'. Two practices every day, and four team workouts a week, but we have the weekends mostly off since we have no games, just a short session on Saturday that is mostly designed for fun, to help shake the rust off and keep our spirits high during the tough preseason schedule.

Not all of the players have arrived yet, mostly due to Visa problems coming from the US, but that's not a problem, the men's and women's team mix together for all team workouts this week and most of our practice sessions too, because it's a lot of ball control and drill work. Today, our workout is first, and our trainer told us to meet him on the track, which is basically everyone's biggest nightmare.

Me and Annie walk to the gym together, as always, but this time we are leading a group of new players. We decide to scare them by telling them the horrible things our trainers have made us do in the past during preseason. Little did we know that today's session would easily become one of those infamous nightmare preseason workout stories.

We arrive on the track and see two weighted sledges next to each other, and a variety of dumbbells near the sledges, and of course our chiselled trainer standing in the middle of it all with a huge grin on his face. He cheerfully explains that we will be in two lines doing a circuit of sledge pushes, and when you aren't pushing the sledge down the track and back, you will be doing bicep curls, shoulder press, burpees, and core. The way the numbers worked out meant that you were generally permitted about a 90-120 second break between the free weight circuit and the next time you had to push the sledge.

We split up into two lines. All the men went in one line and all of the women, went in the other, with the exception of me; I work out best when I work out with Annie, because we have been training buddies for years and she knows how to push me. Our trainer said, "[Author] has the right idea, mix together, the sledges both weigh the same", and so the teams mixed.

The circuit was excruciating. At times, players were barely able to push the sledge back to its origin, moving it inch by inch with encouragement from the rest of us, even though we all understood that the quicker that person returned with the sledge the sooner we would be next in line to push it.

Half-way through, everyone was exhausted, and a few players even left to be sick in the bathroom. Being sick from a workout is rare for volleyball, but less rare with new recruits at the beginning of preseason. We begin our second set, and after the first time through of sledge pushes and free weights, Easton re-joins the team. Easton, a new recruit, had been sick in the bathroom during that first set, but jumped right in and worked hard on the next four sets to finish the workout with the team.

Since Easton was last in line, he finished pushing the sledge back to its origin on the final set and fell to the ground, accomplished, and exhausted. As we all lay on the track feeling relieved, I see Annie get off of the ground and walk over to Easton. Annie can barely talk because she is so out of breath, but she says loudly "Get up, you have one more round to go", as she stands above Easton who is still laying on the ground.

Easton is clearly caught off guard. He says "But I was in the bathroom throwing up". Annie says "We are ALL a team here, and until you finish, the team isn't finished". At this point, Easton gets off the ground and begins to push the sledge, the entire team gather round to cheer him on until he finishes.

If it wasn't clear before, it certainly is clear now, Annie is the leader of our team—of the entire volleyball program. All the returning athletes already knew this, but now the new recruits do, too. Nobody skipped a beat at all, everyone was willing to be led by her. The rest of the year she led both squads, perhaps not on paper, but in spirit, and by example.

This ethnographic passage demonstrates that elite male athletes are willing to view elite female athletes as leaders, and to take direction from female leaders in sporting environments during gender collaborative training. Throughout the year, there were numerous situations on the volleyball team where genders mixed and leaders emerged, both male and female, to help the entire group of athletes improve upon skills and strategy.

Travis, a volleyball player from America, spoke about the first time the volleyball team did circuit training with the women, which involved doing timed high repetition workouts using either dumbbells or body weight around different stations. Travis recalled the encounter:

When I saw my group was with Allison and Jacob, I was excited. It seemed like a really solid group to get me through a tough workout and I was excited to see where I stacked up in comparison to Jacob on a lot of the explosive based exercises. I had no idea at the time that Allison was going to completely destroy us at every exercise.

When we got to the pull-up station, she walked away for the 15-second break, and I had originally thought it was because she needed water or some fresh air, but she came back with the thickest heaviest chains in the gym. I was so confused as to why she had chains. Then, she wrapped them around her waist and jumped up to the pull-up bar. I was shocked. Pound for pound, she is way stronger than me and Jacob, and she does it all without ever grumbling or complaining about the workout, she's a champion.

Jacob, like Travis, made similar comments about that first workout: “I knew she was super strong because I have eyes, but I didn’t know that she was the ‘strap a ton of extra weight to your body and do twenty flawless pull-ups’ type of strong. Allison has become my new workout idol, one day I hope to be Allison’s type of strong.” These male athletes had developed a great deal of respect for Allison because of their shared experiences in the gym.

When discussing gender collaborative workouts with Adam, a water polo player from America, he had some similar comments about some of the female athletes: “Last year, Marisa was pound for pound stronger than some of the new recruits, but this year Ginny is just straight up stronger than some of the new recruits. It shows in the pool as well, she often comes out on top if there’s an opportunity for her to physically overpower some of those guys in the water.” Ginny, who has played professional water polo in many countries, is not always compared with the men in terms of pound for pound, because she is actually able to lift more weights than some of the new water polo recruits.

The men’s and women’s water polo teams often shared gym time for workouts that were set up as circuit training, similar to the volleyball example above. One day, Ginny was in a group with Adam and Malcolm, a British water polo player and new recruit. The first author noticed that during strength-based exercises requiring dumbbells, Ginny took heavier weights than Malcolm, but Malcolm was able to hold endurance exercises like the plank far more easily than Ginny. Here, they supported each other during the workout, encouraging each other to push for one more repetition or hold for a couple of seconds longer. Neither athlete was ashamed to be outdone by the other in the workout, they were more focused on helping each other become stronger athletes. When discussing gender collaborative workouts with Adam, he said: “It doesn’t matter who is stronger during the workout, it matters that we are all getting stronger because of the workout.”

Discussion

This article has documented gender collaborative training processes in elite-level gender segregated sports at a British University. Drawing on 48 in-depth interviews alongside a year-long ethnography, we show the complex dynamics of transgressing the structural constraints of gender segregation by the BUCS leagues. Gender segregated mixed practice matches are welcomed by some but not all players—and both male and female athletes use essentialist gender narratives of strength versus skill to defend their position, whether in defence or support. Far more warmly received was the presence of gender collaborative training, both where one or two players of one gender swap into the other team for practice matches or other forms of training and, more so, for workouts focussed on fitness and strength completed together.

Players who had experienced gender collaborative workouts unanimously supported them, as did some players who had never experienced them. Furthermore, data from the ethnographic components supports the value of this training—not only leading to better workouts but strengthening team cohesion and men's attitudes of women's athletic and leadership abilities. When participants spoke about this training, their narratives also focussed far less on questions of gender difference and instead highlighted women's strength, power or leadership skills. In this way, gender collaborative workouts seemed to step outside the structure that gender segregated sport imposes on Team Northern. Indeed, the structure of segregated competition invites comparisons between men and women (see Hills and Croston 2012), so it is difficult to disentangle attitudes of athletes from the structural conditions that they are discussing. Gender collaborative training, where there is genuine mixing of athletes, may offer a more fruitful avenue for challenging sexist assumptions within a gender segregated system.

In considering these gender essentialist narratives, a helpful analogy is homophobic language in sport. Here, athletes who have positive attitudes toward gay people will still engage use homophobic epithets in a sporting context (Adams, et al., 2010; Magrath, 2018): homophobic language is not indicative of men's attitudes, but is better considered an effect of the structure of organised competitive teamsport—where banter, hedging and the zero-sum game of sport supersede values of equality and inclusivity. In a similar way, gender segregated mixed competition privileges debates about gender differences through essentialist narratives, whereas gender collaborative training develops more benevolent and gender egalitarian perspectives. Being attentive to men's attitudes and behaviours in both contexts gives credence to the notion that it is the structure of gender segregation that leads to sexist views, and that when gender collaborative training is located outside of direct competition it is viewed much more positively by elite athletes.

Feminist scholarship in the sociology of sport has powerfully documented how gender inequality is perpetuated in sport by language that rationalises gender differences as the result of biology and nature, whether it be by players (Fink et al., 2016), the media (Hardin and Homan, 2009) or at grass roots levels (Messner and Bozada-Deas, 2009); shifting focus from the problem of gender segregation that primes people to focus on gender differences in sport (McDonagh and Pappano, 2008). The concept of gender essentialist narratives brings these strands together to see these separate findings as a broader form of social reproduction. We also show in this study how the structure of sport invites such narratives to rationalize gender segregation, and they are not used when discussing mixed workouts.

This study was not a systematic analysis of gender collaborative training because our framing is grounded in the practices occurring during the ethnography. The forms of gender collaborative training we observed were not a formal programme aimed at lessening sexism, but a range of practices that were developed by coaches and the teams. This means we cannot

prove that attitudes change as a result of integrating training, but we can offer gender collaborative training as a potential tool to support gender equality and lessen gender essentialist narratives in sporting contexts where full gender integration in sport is prohibited. Full gender integration is not likely to occur soon in elite teamsports, and so gender-collaborative training may be useful while gender segregation continues to structure elite university teamsport. We have focussed on elite level competition at university level as this was the focus of our data collection, but we endorse these practices across all levels of university sport. We also recommend the use of gender collaborative training at the grass-roots level where possible, both for the benefit of the participating players and also to create an open-minded sustainable sporting trajectory for such training programmes (see Anderson, 2013).

This also leads to avenues for future research. Evaluations of newly introduced gender collaborative training that compared gender attitudes at the start and end of a season would be valuable, as would studies that investigate the sporting benefit of such approaches. Similarly, further research examining when and how gender collaborative training is most effective would be valuable, as well as physiological research on how best to maximise gender collaborative training. Similarly, gender segregation in sport has profound consequences for trans athletes (Anderson and Travers, 2017), and a greater understanding of how gender collaborative training can lessen prejudice and make sport more trans inclusive would also be beneficial.

In conclusion, gender segregation in sport is a complex social and political question, with it being seen both as a way to champion women in sport yet also reproduce gender inequality. Rather than contribute to whether and how sports should be segregated by gender, which is a thorny and enduring debate, we instead focus on gender collaborative training and see it as a potentially powerful tool to combat gender inequality and sexism within elite

teamsport. We call for coaches and universities to incorporate gender collaborative training and workouts for their elite athletes.

Endnotes

1. Substantial differences in the rules between men's and women's lacrosse exist, including a different size playing field and roster size, alongside multiple different rules within the game. Checking is only allowed in men's lacrosse, meaning that men must wear protective gear such as helmets, mouth guards, shoulder pads, knee pads and gloves, whereas women only wear a mouthguard and perhaps goggles for protection.

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